

Amendments to the Specification:

Please replace the pages 2, 14, and 22 on file with the enclosed replacement pages 2, 14 and 22.

Please replace the first paragraph on page 3 with the following:

It has been shown previously that the nutritional value of plant seed oil can be improved by making transgenic plants that express a heterologous delta-6 desaturase enzyme (derived from cyanobacteria, borage, or evening primrose) to effect the conversion of linoleic acid (C18:2), a polyunsaturated fatty acid, to gamma-linolenic acid (GLA, C18:3) (see u.s. patent Nos.: 5552306; 5614393; 5663068; ~~5789050~~; 5689050 5789220; 6355861; 6683232; and us patent application publication No.: 20040078845). Linoleic acid (C18:2) is an LO essential dietary constituent that cannot be synthesized by vertebrates and is usually obtained from plant sources; vertebrate cells can introduce double bonds at the delta-9 position of fatty acids but cannot introduce additional double bonds between the delta-9 double bond and the methyl- terminus of the fatty acid chain. Linoleic acid can be converted by mammals to gamma-linolenic acid (GLA, C18:3), which in turn can be converted to arachidonic acid (20:4), an essential precursor of most prostaglandins.